



UNITED STATES PATENT AND TRADEMARK OFFICE

SK

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,629	12/27/2001	Patrick Caceres	102549.01	8010

7590 03/01/2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, VA 22320

EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,629

Applicant(s)

CACERES ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the RCE filed 12-04-03. Cancellation of claims 6 and 19 are acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,669,894 to Goldman et al. in view of USPN 6,075,177 to Bahia et al.

3. Goldman teaches an absorbent member comprising a permeable (nonwatertight) nonwoven thermoplastic fibers and fibrous materials which form an envelope having walls (functioning as a collapsible envelope as the same materials are employed). The fibrous materials include naturally occurring fibers of cotton, or synthetic fibers of polyesters. See col. 21, lines 20-55 and col. 42, lines 1-8. The fibers may be of single or combined polyethylene, polyester, PET, polypropylene, hydrophilic or hydrophobic see col. 26, lines 10-35, and col. 37, lines 20-49. The fibers have various lengths and may be short or long synthetic fibers with hydrophilic surfaces of cross-linked cellulose, polypropylene, polyester, and many others. See col. 36, lines 34-55 and col. 37, lines 55-65. A hydrogel-forming absorbent polymer such as

Art Unit: 1774

sodium polyacrylate is within the envelope. See col. 31, lines 40-65, col. 32, lines 1-15, lines 55-65, col. 40, lines 35-55, Example 3, col. 17, lines 1-28, Table 1, col. 22, lines 30-41.

Per Applicant's disclosure that the polymer absorbent is sodium polyacrylate, Goldman's same material, inherently is a "core/shell" polymer and inherently functions the same, e.g. "in particulate form...comprises a core of less cross-linked...". See col. 9, line 54. Goldman includes the same materials in his absorbent member, hence, the envelope being collapsible is inherently provided.

Goldman does not teach a viscose fiber (claims 4-5, 10, 12, 16, 18). Bahia teaches a wound dressing. At col.3, lines 40-43, Bahia teaches a viscose rayon or viscose cotton fiber. Bahia further teaches several different viscose fibers are derived from cellulose depending upon the absorbency and tenacity required. Hence it would have been obvious to one of ordinary skill in the art to modify the absorbent members of Goldman to further include viscose fibers since Bahia teaches doing so provides an absorbent nonwoven material with varying degrees of absorbency and tenacity at col. 3, lines 40-60.

The fibers of Goldman are not of fabrics of textile, however Bahia provides textile fabrics teaching strands can be any linear textile material formed from the filaments or fiber, for example a yarn, sliver, roving or rope see col. 2, lines 10-15 and abstract (equivalent to Applicant's cloth types). It would have been obvious to one of ordinary skill in the art to include textiles because Bahia provides the conventional teaching of employing textiles as textiles provide a stronger material.

4. Goldman does not explicitly teach the longer fibers of viscose. However, as Goldman explained above, fibers can be of any length. Since Bahia teaches viscose fibers as a suitable

Art Unit: 1774

fiber in a nonwoven absorbent material, it would have been obvious to one of ordinary skill in the art to modify the absorbent of Goldman to provide a viscose fiber of longer fibers since Bahia teaches providing a viscose fiber to vary absorbency.

Goldman does not explicitly teach viscose fibers from 70 to 90% in the total weight of the nonwoven fabric (claims 8, 12, and 18). Goldman, however, teaches at col. 36, lines 24-25 that fibers may be present from 10 to 90% in order to produce desired properties for absorbency. Hence it would have been obvious to one of ordinary skill in the art to modify the absorbent member of Goldman to vary the percentages of fibers, be it viscose or polyester, or polypropylene since Goldman teaches varying the weight percentage by blending fibers with cellulose for example, results in a high compressive modulus, improving performance at col. 36, lines 45-65. Additionally, Bahia teaches viscose fibers may be used in a cellulose and nonwoven as cited above. Moreover, weight percentage of fibers are optimizable, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

5. Regarding claims 1, 7, 14, and 20-22, the Examiner takes the position that since the polymer absorbent particles are the same (sodium acrylate), then how they react in excess or theoretical amount or relieving pain and cooling effects are inherent. Further these claims are based on process limitations which are not given any weight in product claims. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of

Art Unit: 1774

the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

6. Goldman does not discuss an excess from 5 to 10 percent by weight of the theoretical amount just required to fill a bag completely (per instant claim 7). Goldman includes the same material and would therefore function similarly. Further that a bag is able to hold X amount of polymer particles in excess than theoretically is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The state of the bag or polymers in the bag or the theoretical/excess amount of polymers are not dispositive to patentability of article claims since the process of the particles swelling or not swelling in excess or theoretically are process limitations.

7. Claims 1, 3, 7, 9, 13, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,897,297 to Zafiroglu.

8. Zafiroglu teaches an elastic wet compress. The compress is either cold (equivalent to cooling effect per instant claim 22) or hot and in the form of wet fabrics woven or nonwoven applied to treat burns (equivalent functionality to the method of removing pain) and the fabric is water-permeable (nonwatertight) (see col. 1, lines 11-15 and col. 2, lines 20-35). The fibers included are of polypropylene and polyester staple fibers of natural fibers see col. 4, lines 40-68 of 3.8 cm in length. The article of Zafiroglu is of two layers in any shape such as a pillow or tube and is also conformable, thereby providing for Applicant's collapsible envelope. See col. 4, lines 12-20. The article is filled within with super-absorbent polymeric particulate materials of a hydrogel which absorb liquids expanding the shape of the article as it swells by the absorbance

Art Unit: 1774

of water at col. 3, lines 29-68. Such description is equivalent to Applicant's absorbing to swelling state as per instant claims 1 and 13. While Zafiroglu does not describe the super-absorbent polymeric particulate materials as a "core/shell" polymer, however, such material inherently functions the same, e.g. "in particulate form... comprises a core of less cross-linked..." and is therefore considered to be a core/shell polymer.

9. The outer layers of the article (equivalent to applicant's envelope) is of synthetic textile fibers, wood pulp fibers (implies cellulosic material per instant claim 9), or cotton at col. 4, lines 4-6 (per instant claim 3). Zafiroglu does not discuss an excess from 5 to 10 percent by weight of the theoretical amount just required to fill a bag completely (per instant claim 7). That a bag is able to hold X amount of polymer particles in excess than theoretically is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The state of the bag or polymers in the bag or the theoretical/excess amount of polymers are not dispositive to patentability of article claims since the process of the particles swelling or not swelling in excess or theoretically are process limitations. Zafiroglu provides using a similarly constructed material and conventionally applying the article to a sore part of a body to relieve pain. That water vapor is to be desorbed from hydrogel particles is an inherent property as the same polymer materials are used.

10. To claim 25, what condition a part of a human body is in e.g. normally dry is of no consequence. Patentability of an article is to the article itself not how or where an article is applied.

Art Unit: 1774

11. Claims 2, 8-9, 11, 14-15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,897,297 to Zafiroglu in view of USPN 5,669,894 to Goldman et al.

12. Zafiroglu does not teach sodium polyacrylate (per instant claims 2 and 14). Per Applicant's disclosure that the polymer absorbent is sodium polyacrylate, Goldman's same material, inherently is a "core/shell" polymer and inherently functions the same, e.g. "in particulate form... comprises a core of less cross-linked...". See col. 9, line 54. It would have been obvious to one of ordinary skill in the art to include sodium polyacrylate because Goldman provides the conventionality of using such type of super absorbent polymers.

13. Zafiroglu does not include a longer or shorter fiber comparison of the polypropylene and polyester fibers nor the weight percentage included (per instant claims 8 and 14). Goldman teaches an absorbent member comprising a permeable (nonwatertight) nonwoven thermoplastic fibers and fibrous materials which form an envelope having walls (functioning as a collapsible envelope as the same materials are employed). The fibrous materials include naturally occurring fibers of cotton, or synthetic fibers of polyesters. See col. 21, lines 20-55 and col. 42, lines 1-8. The fibers may be of single or combined polyethylene, polyester, PET, polypropylene, hydrophilic or hydrophobic see col. 26, lines 10-35, and col. 37, lines 20-49. The fibers have various lengths and may be short or long synthetic fibers with hydrophilic surfaces of cross-linked cellulose, polypropylene, polyester, and many others. See col. 36, lines 34-55 and col. 37, lines 55-65. Goldman does not explicitly teach viscose fibers from 70 to 90% in the total weight of the nonwoven fabric (claims 8 and 14). Goldman, however, teaches at col. 36, lines 24-25 that fibers may be present from 10 to 90% in order to produce desired properties for absorbency. Hence it would have been obvious to one of ordinary skill in the art to modify the article of

Zafiroglu to vary the percentages of fibers or lengths, be it polyester or polypropylene since Goldman teaches varying the length and weight percentage by blending fibers with cellulose for example, results in a high compressive modulus, improving performance at col. 36, lines 45-65.

Response to Arguments

14. Applicant's arguments filed 12-04-03 have been fully considered but they are not persuasive.

15. Applicant further argues claims 7 and 20, stating the claims would require 105 to 110 polymer particles based on an assumption of a bag that could hold 100 polymer particles. That a bag is able to hold X amount of polymer particles is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The state of the bag or polymers in the bag or the theoretical/excess amount of polymers are not dispositive to patentability of article claims since the process of the particles swelling or not swelling in excess or theoretically are process limitations. The Examiner strongly suggests simply claiming the ACTUAL weight percent of polymer particles added to make the end product.

16. In response to Applicant's allegation that the Office Action has not established a prima facie case of obviousness because the products are entirely different, the Examiner does not agree. Motivation and suggestion to combine the prior art exists because the same materials are provided in a similar manner. Goldman and Bahia are in the same technical field such as nonwovens. Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection, and the Examiner presents evidence or reasoning tending to show

Art Unit: 1774

inherency, the burden shifts to the Applicant to show an unobvious difference. The Applicant has not provided any **objective** evidence to the contrary.

17. To Applicant's assertion that the references do not teach or suggest the amount of polymer is not a persuasive argument because the Applicant does not even claim an ACTUAL amount. Again, that a bag is able to hold X amount of polymer particles is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The state of the bag or polymers in the bag or the theoretical/excess amount of polymers are not dispositive to patentability of article claims since the process of the particles swelling or not swelling in excess or theoretically are process limitations.

18. Applicant alleges no motivation exists because the purpose is different. The Examiner does not agree. Applicant further alleges that the purpose of containing particles in Goldman and Bahia is to swell and retain liquid. Goldman teaches an absorbent member comprising a permeable (nonwatertight) nonwoven thermoplastic fibers and fibrous materials which form an envelope having walls. The fibrous materials include naturally occurring fibers of cotton, or synthetic fibers of polyesters. See col. 21, lines 20-55 and col. 42, lines 1-8. A hydrogel-forming absorbent polymer such as sodium polyacrylate is within the envelope. See col. 31, lines 40-65, col. 32, lines 1-15, lines 55-65, col. 40, lines 35-55, Example 3, col. 17, lines 1-28, Table 1, col. 22, lines 30-41. Per Applicant's disclosure that the polymer absorbent is sodium polyacrylate, which is Goldman's same material, and inherently is a "core/shell" polymer, inherently functioning the same, e.g. "in particulate form...comprises a core of less cross-

Art Unit: 1774

linked...". Goldman includes the same materials in his absorbent member, hence, the way polymer particles react when in a dry, wet, or any state in between, absorbing or desorbing water, is inherently provided. that a bag is able to hold X amount of polymer particles is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The state of the bag or polymers in the bag or the theoretical/excess amount of polymers are not dispositive to patentability of article claims since the process of the particles swelling or not swelling in excess or theoretically are process limitations.

19. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an article that does not allow fluids to escape) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, Goldman provides a permeable (nonwatertight) nonwoven thermoplastic fibers and fibrous materials which form an envelope having walls, which is an equivalent function of Applicant's non-watertight walls. Moreover, Goldman's polymeric particles comprise the same adsorbent polymer (sodium polyacrylate). See col. 9, lines 46-55 of Goldman. Therefore, any property e.g. cooling effects or retaining or desorbing water would inherently be provided because the same materials as Applicant are used.

20. Applicant further contests that Graham does not teach polymer particles having a core-shell structure. Per Applicant's disclosure (page 8, lines 25-32) that the polymer absorbent is

Art Unit: 1774

sodium polyacrylate, Goldman's same material, inherently is a "core/shell" polymer and inherently functions the same, e.g. "in particulate form... comprises a core of less cross-linked...".

21. In response to new claims 21-22, Applicant contests that Goldman and Bahia do not suggest or teach an absorbent member could or should be used to relieve pain by a cooling effect. Again, intentions are not patentable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WO 02/063984 to Florez and Co. teaches a method and apparatus for treating hemorrhoids. US 6,270,873 to Darnett teaches an absorbent pad. US Publication 2003/0109910 to Lachenbruch teaches a heating or cooling pad. US 6,152,952 to Owens teaches a therapeutic pad and method. US 6,329,565 to Dutkiewicz teaches absorbent structures including hydrogel-forming polymers. US 5,447,531 to Wood teaches a therapeutic heat pack.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1774

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 17, 2004

[tld]

CYNTHIA H. KELLY
SUPERVISOR OF EXAMINERS
TECHNICAL CENTER 1700

Cynthia H. Kelly